

REMARKS

Claims 10, 15-16 and 26 have been rejected under 35 U.S.C. §102(e) as being anticipated by US Pat. 6,397,104 (Miller et al.) Claims 10, 15 and 26 have been amended and are in independent form. Claim 16 has been amended and depends from Claim 15. Claims 3-7 have been amended to depend from amended Claim 10.

Amended Claim 10 describes a cartridge for a defibrillator including a rechargeable battery and a shock delivery circuit coupled to the rechargeable battery, the cartridge comprising a housing having an interior and removably attachable to the defibrillator; an electrode pad disposed within the interior; and a power source disposed within the interior and coupled to the rechargeable battery when the housing is attached to the defibrillator, wherein the power source is operable to provide power to charge the rechargeable battery of the defibrillator. The cartridge addresses the needs of the two maintenance items of an AED, the battery and the electrode pads. New electrode pads are needed for each new patient and even if not used will only have a shelf life of several years before the gel of the pads begins to dry out. The battery needs to be replaced every few years and even more frequently with frequent use of the AED. The cartridge of the present invention provides new pads for a new patient as well as the charge energy to treat the new patient. In addition, the defibrillator with a recharged battery may contain enough charge for several other patients who can be treated with only a new set of electrode pads if a cartridge is not available. With a supply of cartridges the operator of the defibrillator will always know he or she has what is needed to resuscitate a new patient and will not have to worry about new pads or sufficient battery charge.

The Miller et al. device does not provide this capability. The battery 32 of the supply module 14 is the only source of energy for the defibrillator 10 and must constantly be kept recharged. The Examiner equivocates the power supply 44 to a battery in the Office action, but it is clear from col. 4, lines 57-59 of the patent that the power supply 44 only distributes energy from the battery 32 to the low voltage control and monitoring circuitry of the

defibrillator 10. The supply module 14 does not help keep the battery of the defibrillator 10 charged; it is the only energy source for the defibrillator and without it the defibrillator will not operate.

The Tamura et al. application US 2003/0197487 is even more remote from the present invention because it lacks any cartridge for a battery and electrode pads. All that Tamura et al. provides is a second battery 40 to recharge the defibrillator battery 44. There is no cartridge and no provision for the electrodes 12,14 which must be provided separately. Like other standard defibrillators there is no convenient package of both of the maintenance items needed to assure that the defibrillator is ready to treat a patient.

The Examiner will also note that the original Tamura et al. application was filed ten days before the present application. Applicants are ready and able to swear behind the Tamura et al. application, but not believe this is necessary as the present claimed invention is clearly patentable over Tamura et al., either alone or in combination with other references.

Claims 3-7 have been amended to depend from amended Claim 10 and describe specific battery types which may be used in a cartridge of the present invention. Accordingly it is respectfully submitted that Claims 10 and 3-7 are patentable over the cited references.

Amended Claim 15 describes a defibrillator system comprising a defibrillator including a shock delivery circuit, wherein the defibrillator comprises a rechargeable battery coupled to the shock delivery circuit; and a cartridge comprising a cartridge housing having an interior and removably attachable to the defibrillator; an electrode pad disposed in the interior of the housing; a power source disposed in the interior of the housing, and wherein the power source is operable to recharge the battery with power provided by the power source when the housing is attached to the defibrillator. The Miller et al. system has its sole power source, battery 32, in the supply module 14. There is no rechargeable battery in the defibrillator for the power source (battery 32) to recharge. The battery 32 is the sole energy source for the two power source circuits of the defibrillator, the high voltage charging circuit 42 which charges the

capacitor of the defibrillator with a defibrillating charge, and the power supply 44 which supplies the low voltages required by the control and monitoring circuitry. Claim 16 depends from Claim 15 and adds that the power source comprises a battery and is operable to maintain a predetermined charge on the rechargeable battery, which is also not found in Miller et al. Accordingly it is respectfully submitted that Miller et al. cannot anticipate amended Claim 15 and Claim 16.

Amended Claim 26 describes a defibrillator system comprising a defibrillator for generating a defibrillation shock; and a field-replaceable component that is attachable to the defibrillator wherein the defibrillator comprises a battery operable to power the defibrillator; and the field-replaceable component comprises an electrode-pad storage cartridge including, a housing having an interior and removably attachable to the defibrillator, an electrode pad disposed within the interior, and a power source disposed in the interior and operable to charge the battery when the housing is attached to the defibrillator. An operator of the defibrillator can replace the cartridge in the field and instantly have the electrode pad needed for a new patient and be assured that there is sufficient energy from the cartridge power source and battery to treat the new patient simply by attaching the cartridge to the defibrillator. Miller et al. do not have a defibrillator battery which is recharged from the cartridge when an electrode-pad storage cartridge is attached to the defibrillator. Miller et al. have to attach their supply module 14 to the defibrillator for the defibrillator to operate, as the supply module is the only source of energy for the defibrillator. Thus it is respectfully submitted that the Miller et al. patent cannot anticipate Claim 26.

Original Claims 10 and 15-16 were rejected under the doctrine of obviousness-type double patenting as being unpatentable over Claim 17 of Miller et al. It is respectfully submitted that these claims have been amended so that this is no longer the case. It is pointed out that Claim 17 makes no mention of a rechargeable battery in the defibrillator which is recharged by the replaceable supply module battery. Claim 17 also recites that operation of the defibrillator is initiated by inserting the supply module in

the defibrillator, which is not found in any of Claims 10 and 15-16. It is respectfully submitted that Claims 10 and 15-16 as amended are both patentably distinct from Claim 17 of Miller et al. and patentable thereover, either alone or in combination with the Tamura et al. application.

In view of the foregoing amendment and remarks it is respectfully submitted that Claims 3-7, 10, 15-16 and 26 are not anticipated by Miller et al. and are patentably distinct over Miller et al. Accordingly it is respectfully requested that the rejection of Claims 3-7, 10, 15-16 and 26 under 35 U.S.C. §102(e) and the doctrine of double patenting be withdrawn.

In light of the foregoing amendment and remarks, it is respectfully submitted that this application is now in condition for allowance. Favorable reconsideration is respectfully requested.

Respectfully submitted,

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